| Over track that meets all of the requirements prescribed in this subpart for— | The maximum allowable operating speed for trains [1] is— |
|---|---|
| Class 7 track | 125 m.p.h. |
| Class 8 track | 160 m.p.h.[2] |
| Class 9 track | 200 m.p.h. |

[1] Freight may be transported at passenger train speeds if the following conditions are met:

(1) The vehicles utilized to carry such freight are of equal dynamic performance and have been qualified in accordance with Sections 213.345 and 213.329(d) of this subpart.

(2) The load distribution and securement in the freight vehicle will not adversely affect the dynamic performance of the vehicle. The axle loading pattern is uniform and does not exceed the passenger locomotive axle loadings utilized in passenger service operating at the same maximum speed.

(3) No carrier may accept or transport a hazardous material, as defined at 49 CFR 171.8, except as provided in Column 9A of the Hazardous Materials Table (49 CFR 172.101) for movement in the same train as a passenger-carrying vehicle or in Column 9B of the Table for movement in a train with no passenger-carrying vehicles.

[2] Operating speeds in excess of 150 m.p.h. are authorized by this part only in conjunction with a rule of particular applicability addressing other safety issues presented by the system.

(b) If a segment of track does not meet all of the requirements for its intended class, it is to be reclassified to the next lower class of track for which it does meet all of the requirements of this subpart. If a segment does not meet all of the requirements for Class 6, the requirements for Classes 1 through 5 apply.

### § 213.309 Restoration or renewal of track under traffic conditions.

(a) Restoration or renewal of track under traffic conditions is limited to the replacement of worn, broken, or missing components or fastenings that do not affect the safe passage of trains.

(b) The following activities are expressly prohibited under traffic conditions:

(1) Any work that interrupts rail continuity, e.g., as in joint bar replacement or rail replacement;

(2) Any work that adversely affects the lateral or vertical stability of the track with the exception of spot tamping an isolated condition where not more than 15 lineal feet of track are involved at any one time and the ambient air temperature is not above 95 degrees Fahrenheit; and

(3) Removal and replacement of the rail fastenings on more than one tie at a time within 15 feet.

### § 213.311 Measuring track not under load.

When unloaded track is measured to determine compliance with requirements of this subpart, evidence of rail movement, if any, that occurs while the track is loaded shall be added to the measurements of the unloaded track.

### § 213.317 Waivers.

(a) Any owner of track to which this subpart applies may petition the Federal Railroad Administrator for a waiver from any or all requirements prescribed in this subpart.

(b) Each petition for a waiver under this section shall be filed in the manner and contain the information required by §§ 211.7 and 211.9 of this chapter.

(c) If the Administrator finds that a waiver is in the public interest and is consistent with railroad safety, the Administrator may grant the waiver subject to any conditions the Administrator deems necessary. Where a waiver is granted, the Administrator publishes a notice containing the reasons for granting the waiver.

### § 213.319 Drainage.

Each drainage or other water carrying facility under or immediately adjacent to the roadbed shall be maintained and kept free of obstruction, to accommodate expected water flow for the area concerned.

### § 213.321 Vegetation.

Vegetation on railroad property which is on or immediately adjacent to roadbed shall be controlled so that it does not—

(a) Become a fire hazard to track-carrying structures;

(b) Obstruct visibility of railroad signs and signals:

(1) Along the right of way, and

(2) At highway-rail crossings;

(c) Interfere with railroad employees performing normal trackside duties;

(d) Prevent proper functioning of signal and communication lines; or

(e) Prevent railroad employees from visually inspecting moving equipment from their normal duty stations.

### § 213.323 Track gage.

(a) Gage is measured between the heads of the rails at right-angles to the rails in a plane five-eighths of an inch below the top of the rail head.

(b) Gage shall be within the limits prescribed in the following table:

| Class of track | The gage must be at least— | But not more than— | The change of gage within 31 feet must not be greater than— |
|---|---|---|---|
| 6 | ′8″ | 4′9¼″ | ½″ |
| 7 | 4′8″ | 4′9¼″ | ½″ |
| 8 | 4′8″ | 4′9¼″ | ½″ |
| 9 | 4′8¼″ | 4′9¼″ | ½″ |

**§ 213.327 Alinement.**

(a) Uniformity at any point along the track is established by averaging the measured mid-chord offset values for nine consecutive points centered around that point and which are spaced according to the following table:

| Chord length | Spacing |
|---|---|
| 31′ | 7′9″ |
| 62′ | 15′6″ |
| 124′ | 31′0″ |

(b) For a single deviation, alinement may not deviate from uniformity more than the amount prescribed in the following table:

| Class of track | The deviation from uniformity of the mid-chord offset for a 31-foot chord may not be more than— (inches) | The deviation from uniformity of the mid-chord offset for a 62-foot chord may not be more than— (inches) | The deviation from uniformity of the mid-chord offset for a 124-foot chord may not be more than— (inches) |
|---|---|---|---|
| 6 | ½ | ¾ | 1½ |
| 7 | ½ | ½ | 1¼ |
| 8 | ½ | ½ | ¾ |
| 9 | ½ | ½ | ¾ |

(c) For three or more non-overlapping deviations from uniformity in track alinement occurring within a distance equal to five times the specified chord length, each of which exceeds the limits in the following table, each owner of the track to which this subpart applies shall maintain the alinement of the track within the limits prescribed for each deviation:

| Class of track | The deviation from uniformity of the mid-chord offset for a 31-foot chord may not be more than— (inches) | The deviation from uniformity of the mid-chord offset for a 62-foot chord may not be more than— (inches) | The deviation from uniformity of the mid-chord offset for a 124-foot chord may not be more than— (inches) |
|---|---|---|---|
| 6 | ⅜ | ½ | 1 |
| 7 | ⅜ | ⅜ | ⅞ |
| 8 | ⅜ | ⅜ | ½ |
| 9 | ⅜ | ⅜ | ½ |

**§ 213.329 Curves, elevation and speed limitations.**

(a) The maximum crosslevel on the outside rail of a curve may not be more than 7 inches. The outside rail of a curve may not be more than ½ inch lower than the inside rail.

(b) (1) The maximum allowable operating speed for each curve is determined by the following formula:

$$V_{max} = \sqrt{\frac{E_a + 3}{0.0007D}}$$

Where—

$V_{max}$ = Maximum allowable operating speed (miles per hour).